

## WHAT IS CLAIMED IS:

1. A group communication system comprising one or more control stations, one or more base stations connected to the control station via a wire line or a wireless line, and a plurality of mobile stations  
5 connected to the base stations via wireless lines,  
wherein (a) the control station or the base station comprises means for controlling a group communication number which is under communication via any of said base and control stations and  
10 (b) the mobile station comprises means for transmitting a group communication number together with a mobile station identification number upon executing location registration of the mobile station, and  
wherein as for the control station or the base  
15 station that receives a group communication number transmitted together with a location registration signal from the mobile station, said control station or said base station comprises means for examining the presence or absence of a call during communication based  
20 on the group communication number, with the information thereof being notified to the mobile station when a relevant call is present so that the mobile station receiving the notification is allowed to participate in the group communication through a calling procedure

25 based on the group number, automatically or through operation by a user of the mobile station.

2. The group communication system as defined in claim 1, wherein said control station comprises said means for controlling the group communication number which is under communication.

3. The group communication system as defined in claim 1, wherein said base station comprises said means for controlling the group communication number which is under communication.

4. The group communication system as defined in claim 1, wherein said control station or said base station comprises a location registration register module, a control module, and a switch module, with said location registration register module comprising a mobile station identification number register module and a group communication number module.

5. The group communication system as defined in claim 4, wherein said control module is operatively connected with a control module at each of said base stations.

6. The group communication system as defined in claim 5, wherein said mobile station comprises a signal processing module connected to a register module which stores communication control information including the mobile station identification number and the group

communication number, said signal processing module being programmed to transmit the stored mobile station identification number and the stored group communication number to the base station, automatically  
10 through a programmed procedure or through manual operation on the mobile station.

7. The group communication system as defined in claim 6, wherein said control module comprises a programmed step which confirms the mobile station through its identification number and a current location registration signal upon power ON of the mobile station  
5 followed by examining if there is a call for the group communication number, and if confirmed, notifies the group communication information to the mobile station.

8. The group communication system as defined in claim 7, wherein said control module further checks if hand-over into a new service area occurred for the mobile station, and if YES, said programmed step is repeated  
5 under a new location registration signal indicative of the new service area.

9. A group communication system comprising:  
means for providing a group communication number for a mobile station to an information element of a location registration signal transmitted to a base  
5 station, when power of a mobile station is turned on

or when a mobile station in communication over a plurality of zones entered a group-communication objective wireless zone due to hand-over or else and,  
means for retrieving the group communication  
10 number by a group-communication group number controlling register in a control station, examining presence or absence of a group communication call of the mobile station, and upon a relevant call notifying the information to the mobile station so as to  
15 participate in the group communication in the course thereof.